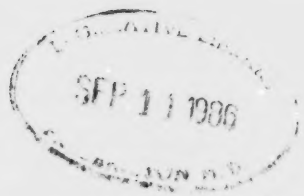
PROGRAM EVALUATION PLAN 1985/86
PHASE I - REHABILITATION PROGRAM
ALCOHOLISM & DRUG DEPENDENCY COMMISSION
Nov.15, 1985



PREPARED BY

ELAINE CAMPBELL, M.A.

R. J. McHUGH, M.A.

In response to the request from Cabinet Secretariat, the Alcoholism and Drug Dependency Commission proposed a four phase evaluation process for its Treatment Services. Phase I evaluates Rehabilitation Programs with a proposed completion date of September 15, 1985.

Phase II will evaluate Treatment Programs, with a proposed completion date of February 1, 1986.

Phase III will evaluate Out-patient, Day Care, Evening and Family Programs, with a proposed completion date of June 1, 1986.

Phase IV will be a comparative analysis between Treatment Services programs and similar programs offered in other jurisdictions. The proposed completion date for this phase is December 1, 1986.

This submission is the Evaluation Report on Phase I.

EXECUTIVE SUMMARY

This Program Evaluation was based on two broad research objectives, as stated below:

1) To evaluate, as accurately as possible, the outcome or effects of the Rehabilitation Programs offered by the Alcoholism and Drug Dependency Commission in relation to the stated goals and objectives of the Rehabilitation Program.

2) To evaluate the results of the Rehabilitation Program and the implications of these results in relation to the general mandate of the Alcoholism and Drug Dependency Commission.

Within the frame work of these two objectives, there were four Basic Questions:

1) What is a definition of positive outcome and what proportion of the Rehabilitation Program patients reported a positive outcome?

For the purposes of this study and in keeping with commonly accepted practice in the field of addictions, six months of total abstinence and improvement in life-style following the Rehabilitation Program were the key factors in determining positive outcome.

2) What is the quality and quantity of care provided to the Rehabilitation Program patients?

The quality and quantity of care provided was found to be at a level comparable to other high quality health care facilities.

3) What are the costs and benefits of the Rehabilitation Program in relation to the costs of substance abuse on a provincial scale?

The cost and benefits are outlined in detail in Section 4.3. The cost of substance abuse to the province is at least $177.6 million per year based on 1982/83 fiscal year figures. The per diem cost of Rehabilitation programming in New Brunswick is $58.80 per day for 1985-86. There is a substantial cost

saving in health care dollars resulting from this type of intervention.

4) If changes are contemplated to the Rehabilitation Program, what are the implications of these changes to the rest of the Treatment Services offered by the Alcoholism and Drug Dependency Commission?

This question is addressed on page v of the Executive Summary and in Section 5.0.

The Rehabilitation Programs operated by the Alcoholism and Drug Dependency Commission of New Brunswick are based upon a number of goals and objectives which form the foundation for a healthy, positive life-style. For an addicted person to develop or re-establish a healthy, positive life-style, the person and family members must live free from the destructive effects of the addictive substance(s). Therefore, not only do patients have to undergo a significant psycho-social development during their Rehabilitation Program, they must also implement these skills and live in a sober fashion after their return to the community.

This evaluation was done in order to measure the degree to which the Rehabilitation Program addressed this issue. To measure this, all 81 Rehabilitation Program patients treated in January and February 1985 were studied and they were followed up six months later.

The results of this evaluation showed that:

1) Fifty percent (50%) remained totally abstinent from drugs and alcohol throughout the six month follow-up period. This recovery rate is among the highest in Canada and the United States.

2) Seventy-six percent (76%) reported their participation in the Programs had resulted in an improved life-style, again a very significant indicator of positive impact of the Program.

3) Twenty percent (20%) reported their family was actively involved in a recovery program.

4) Forty-five percent (45%) reported they had used protective medication against drinking (Antabuse/Temposil) after the Rehabilitation Program, a reflection of their motivation to recover.

5) Before treatment for their illness, alcoholics and their families use a significant amount of health and social services. This utilization is reduced substantially after treatment in a Rehabilitation Program. The implication of this finding is that other health and social services are providing services to alcoholics and their families but they are essentially treating the effects and not the causes of the illness. This results in inflated health care costs across the board.

6) The quality and quantity of care is of a high level and is provided at a cost substantially lower than comparable care in other health care facilities. The benefits of alcoholism treatment clearly outweigh the costs of delivery.

7) More patients under the age of 30 are being admitted to alcoholism programs. This implies not only that programs of early intervention and prevention are working, but also that people are developing addictive relationships with alcohol and drugs at a faster rate than previously believed.

8) The occupancy rate of 79% and the attrition rate of 16% indicate that the programs are heavily in demand and are meeting the needs of their clientele.

9) The treatment services network in New Brunswick is organized in a systematic and responsive fashion. Staff qualifications are somewhat lower in the northern part of the province. In-patient care standards are the same throughout the province.

10) There has been a growing utilization of services by adolescents and women in the past few years. Adjustments in program design and content should occur to reflect these changes in the clientele.

In summary, these results are indicative of the high quality of service being provided at this time to the residents of New Brunswick. There is room for improvement and suggested courses of action are as follows:

1) Greater effort and resources should be assigned to enhancing the use of services by youth, females and family members.

2) Serious consideration should be given to adjusting the length of the Rehabilitation Program from four weeks to three weeks because the average length of stay presently is 21.3 days for males and 19.2 days for females. This implies that the chronological point of diminishing returns for Rehabilitation patients is about three weeks of in-patient care.

Should this suggested Program change be implemented, it could be implemented on a "pilot project" basis for a one year period. Due to staff and physical plant capability, it would be possible to implement this only at Ridgewood.

Such a move would have the following implications:

A It would cause a greater utilization of existing human, financial and physical plant resources at a marginal increase in costs. Approximately 36% more programs could be offered, resulting in 36% more patients who could receive this service.

B This probably would allow for more women and youth to be treated in a Rehabilitation Program. Current treatment philosophy strongly suggests adolescents not be treated with older adult patients because the needs of adolescents are radically different. The same philosophy holds true for women. Changing to a three week program compared to the current four week structure would allow for programs to be more accurately targeted to meet the needs of specific groups such as women, adolescents, seniors and recidivists. Although the present program content fits the patient's needs and not vice-versa, this would be enhanced by treating more homogeneous groups of patients.

C The impact of this change upon Detoxication (Treatment) facilities would not be detrimental.

D The impact of this change upon after care services could be significant and would require monitoring of Out-patient counsellor case loads to determine whether additional positions would be required.

E Cost-benefit analysis suggests that changing to a three week program in Campbellton might not be worthwhile, due to human and physical plant resource limitations. At the same time, it might be advantageous to offer another option for intervention by having a four week program in Campbellton. Since a change to a three week program would necessitate an outcome evaluation plan being an integral component of such a move, it would be useful to have a four week program for comparison of treatment outcomes. Presently there is no significant difference between the two facilities as far as abstinence and program content is concerned.

F Treatment outcome studies done by the Alberta Alcoholism and Drug Abuse Commission indicate that there is no significant difference in outcome rates between 21 and 28 day programs.

G The move to a three week program could be implemented during the 1986-87 fiscal year.

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INTRODUCTION

The treatment of persons suffering an alcoholism or drug dependency has always posed problems for the general health care field. The symptoms of the illness and the various courses of treatment have resulted in the development of intervention programs that the general and psychiatric hospital environments cannot readily accommodate.

Historically, addiction service delivery systems have offered three major clinical services. The first is an Out-patient counselling , aftercare and referral service. The second is a Treatment service which provides detoxication and assessment. The third is a Rehabilitation service which is generally composed of group therapy, life skill and educational experiences.

Rehabilitation Programs have been in existence for about 25 years in Canada. They vary in length of stay, content, setting and overall philosophy or approach. The vast majority, however, have the following commonalities:

1) Services are offered to both men and women.

2) Services are predominantly offered on an in-patient basis due to the great need to stabilize and develop a positive, healthy life-style. The average length of stay is four weeks.

3) A comprehensive approach is used, meaning that the person's overall life-style is examined and specific objectives for change are developed.

4) Total abstinence from alcohol and other drugs is a definite goal for the patient.

5) Family members and significant others in the person's life are offered counselling and education as well.

In this province, the Alcoholism and Drug Dependency Commission offers two Rehabilitation Programs. One is at Ridgewood in Saint John and has 30 beds. The other, with 14 beds is at the Campbellton Treatment and Rehabilitation Centre. Each has been in existence in various forms since 1973 and 1974 respectively. The most significant development in programming occurred in 1979 with the relocation of services in Saint John from 1 Hazen Avenue to the present Ridgewood facility. In conjunction with this move, nurses and sessional physicians were introduced at Ridgewood. These services became available at Campbellton shortly thereafter.

In an effort to upgrade the quality of care, the Alcoholism and Drug Dependency Commission entered into a one-year $125,000 contractual arrangement with the Donwood Institute of Toronto. At the time (1979), Donwood was offering the best Rehabilitation Program in Canada and one of the top five in North America. Key Ridgewood staff were rotated through a training program in Toronto. Donwood staff provided consultative services to Ridgewood staff at Ridgewood. Ideas and approaches developed in this fashion were used in the Campbellton facility as well.

In summary therefore, the two Programs in question have been in operation a little over ten years. The last six years have seen the Programs reflecting not only the input of the Donwood Institute but also the growing professionalism of Commission staff.

MAJOR OBJECTIVES OF THIS STUDY

As stated in the Evaluation Plan of June 28, 1985, the two major objectives were as follows:

1) To evaluate, as accurately as possible, the outcome or effects of the Rehabilitation Programs offered by the Alcoholism and Drug Dependency Commission in relation to the stated goals and objectives of the Rehabilitation Program.

2) To evaluate the results of the Rehabilitation Program and the implications of these results in relation to the general mandate of the Alcoholism and Drug Dependency Commission.

Within the goals and objectives of the Act, The Alcoholism and Drug Dependency Commission is given the legislative mandate to operate Treatment and Rehabilitation Programs, as specifically noted in sections 3(1) (a) 1 and 3(2) (a) of the Provincial Act.

In order to address these objectives, relating to treatment outcome, it is important to look at the goals of the Rehabilitation Program. The goals are that patients should learn about their illness and its effect on themselves and their family members. In addition they must learn new ways of thinking, feeling and acting in their post-rehabilitation recovery phase. They must learn how to deal more effectively with personal stress and problems as well as to utilize community resources in a positive, effective fashion. Finally, patients must learn the measurable, technical components of living in a sober healthy fashion as opposed to the self destructive life-style they had lived for many years prior to their Rehabilitation Program.

The Rehabilitation Program of the Alcoholism and Drug Dependency Commission of New Brunswick is based on the philosophy that alcoholism and drug dependency cause severe disruptions to the major areas of a person's life and to the lives of significant others. Our programs are based on a "total health" approach which stresses a return to a holistic, healthy life-style for the chemically dependent person and family members. This is accomplished through a lecture series, films, individual and group therapy and group discussions. Recreational and relaxation techniques are also utilized to facilitate life-style changes that are required. Rehabilitation programs also form the basis for ongoing aftercare recovery which continues in the community for up to two years following completion of the program.

This study will take a comprehensive approach to analyzing the costs of providing these programs, and the benefits of same to the patients and to the province.

4.0 Inputs to and the Process of Rehabilitation Programs

4.0.2 - The Structure and Content of the Rehabilitation Program.

A. Policy Structure and Content

The activities of Rehabilitation Program staff in both Campbellton and Saint John are governed by the administrative and treatment policies of the Alcoholism and Drug Dependency Commission. In addition, various Collective Agreements such as those of Locals 1251 and 1418 of the Canadian Union of Public Employees, Part I of the New Brunswick Nurses Union as well as various position specifications relating to the above collective agreements govern the activities of staff.

The Treatment Policies and the Patient Handbooks form the policy structure for Rehabilitation Program activities on a daily basis for both staff and patients. From 0700 hours until 2100 hours Monday to Friday, patients are in a structured learning environment. These activities include lectures, individual and group therapy on various aspects of alcoholism and drug dependency, audio-visual presentations and discussions, relaxation and stress management techniques and daily responsibilities assigned to patients both through the week and on the weekend.

As an elaboration on the above, please refer to Appendix I which provides a listing of various policies and major resource materials. Detailed copies of any or all of these items are available upon request.

In Campbellton, the policy-authority structure commences with the Centre Director. Reporting to him are the two therapists who are the Rehabilitation Program key staff. The Alcoholism Rehabilitation Counsellor also reports to the Centre

Director, but coordinates his work with the therapists. Two other key staff are involved with the program on an as needed basis. These are the Head Nurse, who is responsible for the nursing care of patients and the Out-patient counsellor, who is the Admission Coordinator. They provide periodic lectures to patients in the program. As well, the Out-patient counsellor provides follow-up to Campbellton area patients after discharge.

In a secondary fashion, these five staff are supported by input from alcoholism attendants, registered nurses, physicians and volunteers from A.A. and Al-Anon.

In Saint John, at Ridgewood, the Rehabilitation Program is under the direction of the Senior Head Nurse. The Rehabilitation Program policy-authority structure commences at her level. Reporting to and coordinating their activities with her are the three Rehabilitation Program therapists, the audio-visual technician, the leisure and relaxation therapist, the recreation leader, the admissions coordinator and the employment counsellor. This last position is funded by Canada Employment and Immigration under its "Outreach Program" which is directed to assist specific disadvantaged groups to find employment.

In addition, on an as needed basis, input is received from the Physician, Out-patient counsellors, volunteer clergy and A.A. and Al-Anon volunteers.

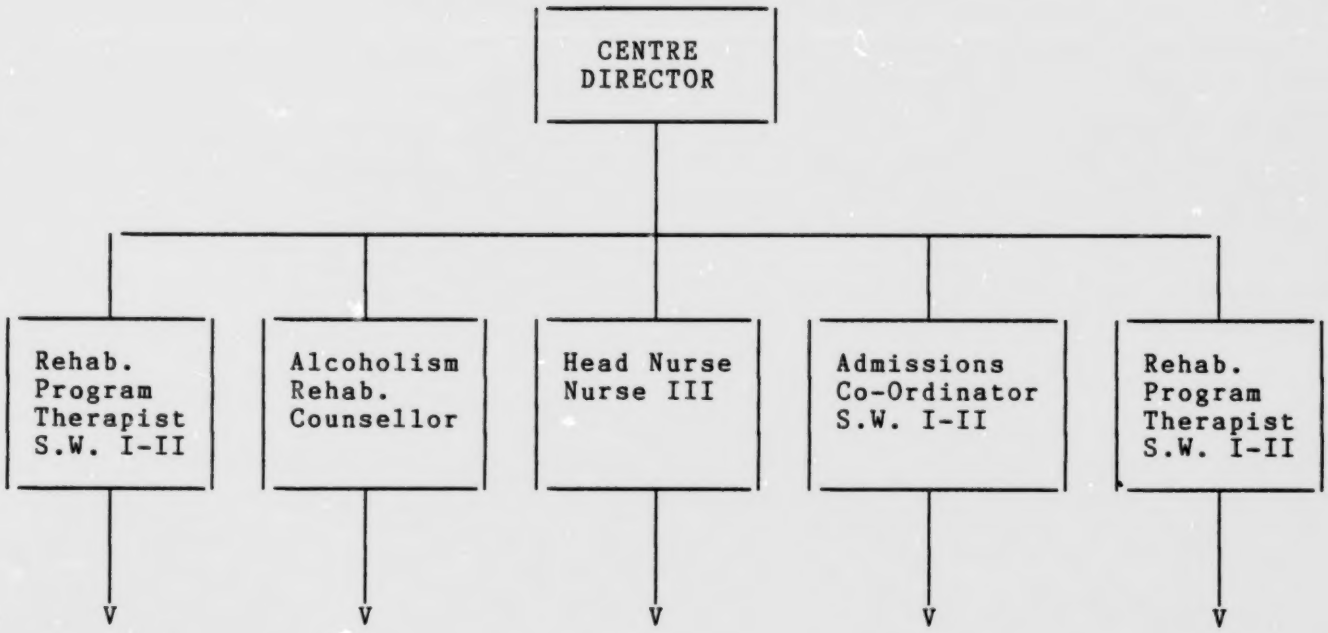
Figure 1 is a chart of the policy-authority structure for the Campbellton Centre.

Figure 2 provides the policy-authority structure for Ridgewood.

Figure 1

POLICY AUTHORITY STRUCTURE

CAMPBELLTON REHABILITATION PROGRAM

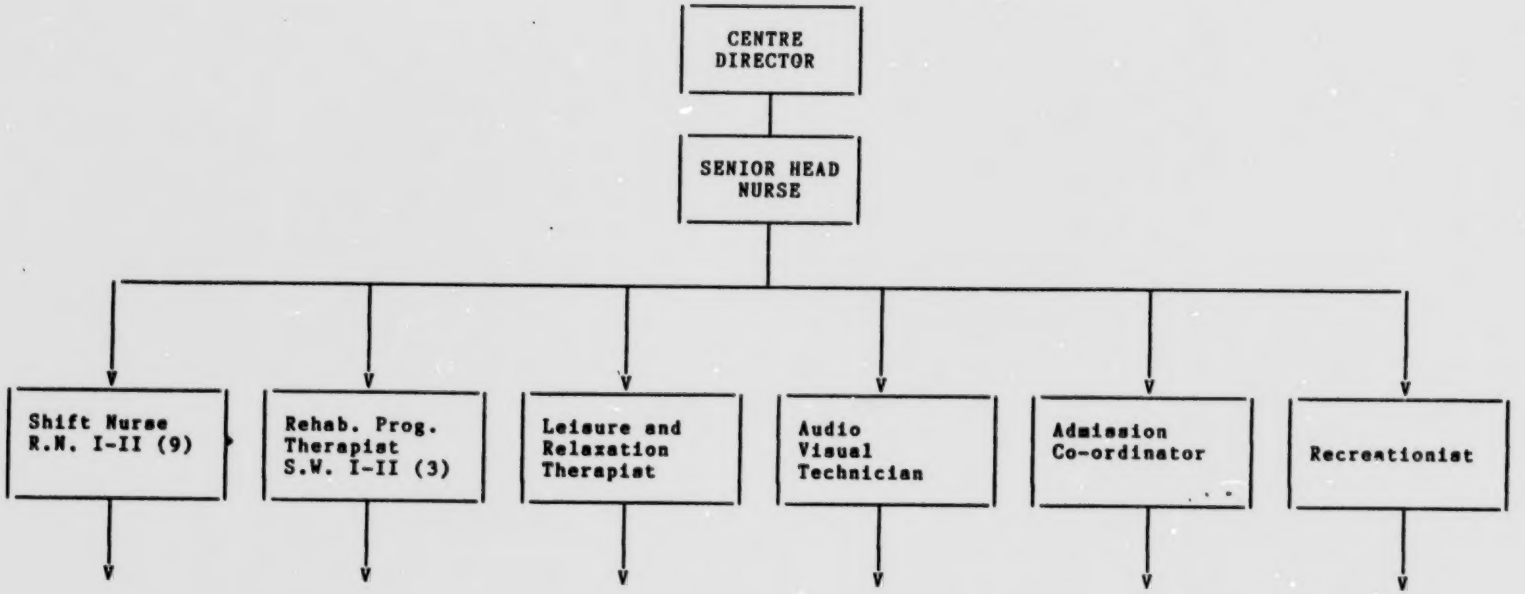


MAJOR INVOLVEMENT IN REHAB. PATIENT CARE ACTIVITIES

Figure 2

POLICY AUTHORITY STRUCTURE

RIDGEWOOD REHABILITATION PROGRAM



Major involvement in Rehab. patient care activities.

B. Referral Process

All patients who are referred to a Rehabilitation Program are referred by an Alcoholism and Drug Dependency Commission Out-patient counsellor. There are sixteen Out-patient counsellor positions in Treatment Services and the decision to refer rests with them. The Chemical Dependency Assessment which they complete on prospective Rehabilitation patients is elaborated upon in Appendix II. As a result of this assessment process, a number of treatment goals are possible, ranging from A.A. involvement, Rehabilitation Program, Out-patient counselling, Antabuse therapy, referral out to another health or social agency, referral to a Detox Plus Program[1] or in-patient treatment for withdrawal purposes. Depending on their needs, patients can have one or a combination of the above goals presented to them as intervention options. The decision to refer a person to a Rehabilitation Program is taken when it is evident that they need intensive intervention to arrest their illness. The earlier this sort of intervention happens, the better the chance that a significant life-style change will occur in the patient and the family.

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[1]The Detox Plus Program is a five day program of lectures and counselling sessions. It is offered to men and women on an in-patient or Day Care basis and is an adjunct to Out-patient counselling. It is not an alternative to a Rehabilitation Program but for some who cannot make a 28 day committment, it provides some of the educational and psycho-social supports necessary for sobriety. Patients must be fully detoxified prior to admission. These programs have been offered in Newcastle, Fredericton, Edmundston, Bathurst and Tracadie.

Once the decision is made to refer a person to a Rehabilitation Program, the Out-patient counsellor contacts the Admissions Coordinator at either Ridgewood or Campbellton to determine when the person could be admitted. Generally, although not in all cases, residents in the southern part of the province are referred to Ridgewood. General guidelines are established to guide the Ridgewood Admissions Coordinator in allocating beds to the residents of the province on an equitable basis.

All persons who require admission to a French Rehabilitation Program are referred to Campbellton where these are provided on a regular basis. In the last year, the need for Rehabilitation services in the French language has increased to the point where the majority of programs in Campbellton have been in French, although English Rehabilitation Programs are regularly provided there as well. Other than linguistic preference, the only other factor to possibly consider is the sex of the patient. In Campbellton, there is a maximum of three female beds for Rehabilitation purposes.

In Ridgewood, the sex of the patient is not an issue due to the physical design of the Rehabilitation Program pavilions. There are private, semi-private and three bed ward accommodations available at Ridgewood, so as many as fifteen women could be accommodated at any one time.

Once the initial contact with the Admissions Coordinator is made, the referral documentation is forwarded to the appropriate facility. When this is received, the reservation is confirmed for the person for the particular program. This documentation is detailed in Appendix II.

As much as possible, an effort has been made by the Alcoholism and Drug Dependency Commission to have a Rehabilitation Program commencing every Monday at either facility

in the Province. This sequencing is not possible all the time due to Christmas holidays and staff vacations.

The Alcoholism and Drug Dependency Commission sees this as very important, because for this illness to be treated, the intervention must be readily available. Little is gained by having a person wait for three or four months for appropriate health care, as the "window of motivation" may only be open for a short time. In some jurisdictions, for example Henwood Rehabilitation Centre in Alberta, Rehabilitation Programs are structured in such a fashion that the patients may enter any day of the 28 day cycle. The Alcoholism and Drug Dependency Commission does not agree with this as it does not foster intra-group cohesion and one the foundations of recovery is group support. As well, since there is a sequence of learning in the Rehabilitation Program, it is more productive to have everyone "on the same wavelength".

C. Admission Criteria

As stated in the Alcoholism and Drug Dependency Commission Treatment and Rehabilitation Policy Manual, all persons admitted to a Rehabilitation Program must be:

1) DETOXIFIED from alcohol and/or other dependent drugs;

2) VOLUNTARY, or in agreement with the admission;

3) AMBULATORY, or able to actively participate in the Program;

4) COOPERATIVE, or willing to abide by all the particular rules and regulations of that Program as mentioned in the Patient's Handbook. For example, all meals, curfew hours, attendance at all program activities and the use of Antabuse if medically appropriate;

5) CONSENTING, or willing to sign appropriate legal and documentation forms. For those people who have not attained the age of 16 years, these forms must be signed by a parent or guardian. In cases where the parent or guardian is unavailable to sign and:
   a) the minor is capable of understanding the nature and consequences of a medical treatment, and

b) the medical treatment and the procedure to be used is in the best interests of the minor's continuing health and well being, medical treatment may be provided if the opinion of a legally qualified medical practitioner is supported by the written opinion of one other legally qualified medical practitioner.

In addition to the foregoing, two additional criteria should always be considered with respect to admission to Rehabilitation Programs:

1) If any of the following conditions are present, the person would not be admitted:

a) active psychosis

b) serious brain damage or intellectual deficit which would limit understanding of the program

c) physical disabilities that could interfere significantly with participation in the program.

2) If any of the following conditions are present, the person may not be admitted:

a) current incarceration: the person may be asked to re-apply after release

b) current legal charges: the person may be asked to clear these before admission is granted.

Guidelines for Rehabilitation Staff

1) First time admissions to a Rehabilitation Program have priority over a repeater. A repeater is a person who has been in a Rehabilitation Program in the last twelve months and has relapsed.

2) All referrals to Rehabilitation Programs are to be completed by an Alcoholism and Drug Dependency Commission of New Brunswick Out-patient counsellor, preferably one closest to the person's home community. Outside agencies have no referral privileges. Referrals are to be directed to the Admissions Coordinator, or their representative, at the appropriate facility.

Regulations Under The Admission Policy

1) Documentation must be completed and forwarded to the Admission Coordinator as required. This includes:

a) Dependency Assessment and associated information;

b) Medical Data completed and results forwarded prior to the program starting. This includes Chest x-ray, E.C.G., S.M.A.C. or similar laboratory test(s), done by the Family Physician or by the Roster Physician.

2) To bridge the time between Treatment & Rehabilitation, Out-patient counselling for the person and their family will be provided as required and continued while the person is in the Rehabilitation Program.

3) The Rehabilitation Program Admission Coordinators in Campbellton and Ridgewood are to regularly communicate to ensure that cancellations are filled and double bookings are minimized.

4) The person must arrive before 2000 hours on the day before the Program commences.

5) The person's luggage will be searched upon presentation to the Rehabilitation Program facility to ensure that alcohol, prescribed or illicit drugs or concealed weapons are not present.

In summary, there are specific policies, criteria, and procedures for staff to follow in making referrals to Rehabilitation Programs. These have been designed to ensure a common standard of care across the province. Because the Chemical Dependency Assessment is completed by our staff, it ensures an equitable access to Rehabilitation Programs for all residents of the Province who require this service.

D. Delivery Structure

A chemical dependency rehabilitation program cannot function effectively unless it is well organized and delivered in a planned and structured fashion. There must be a framework established that outlines what expectations exist for both the staff and the patients. The nature of the behavioral symptoms of alcoholism demand this approach. If structure did not exist,

then the period of time in programming would quickly evolve into one in which custodial care is the only possible outcome.

With the above in mind, the Rehabilitation Programs in this province are designed to structure the time for patients and staff from before breakfast time until midnight. During the majority of the day, patients in the Rehabilitation Program are in defined experiences. These experiences may be a lecture, a film and discussion, individual counselling, stress management exercises, recreational experiences, self-directed learning or self-help group meetings.

In the majority of situations, one staff person at a time provides these experiences to the patients, such as the therapist or the nurse providing a group therapy session or lecture to the patients. In some cases, such as when community resource people (representatives of A.A. or Al-Anon) provide a discussion, two or three people may be speaking to the patients.

The group approach is used in the majority of situations. The reasons for this are that the literature, research and past practice confirm this not only to be cost effective, but also therapeutically effective. There are situations or problems which are handled in individual counselling sessions and specific times are set aside for these.

In the first week, there is a significant amount of time allocated to physical examinations by the physician, and to a psychosocial assessment of the patient's functioning after entry into the program. This process and the meetings directed to sharing this information between staff members take up most of the first three days. In this fashion individual patient's needs are identified. These needs, whether they be specific dietary needs, legal, employment or marital counselling needs, are identified and included as part of the overall treatment

planning for each patient within the capability of the program.

The primary goal of the program is to provide treatment for alcoholism. Other specific goals are addressed, but done in such a fashion so as not to deflect the focus of the patient away from their primary problem, their addiction.

To address the multiplicity of needs that patients have when they enter a Rehabilitation program, the Alcoholism and Drug Dependency Commission has adopted a multidisciplinary team approach. This has been done to allow the necessary clinical expertise to be brought to the program and the patients.

Each week, the multidisciplinary team meets at least once to review the course of treatment for each patient. In the last week, the meeting is directed to making final confirmations for after care planning and referrals for each patient.

In summary, by adopting a total health approach to the treatment of addictions and by using a multidisciplinary treatment team as the vehicle to deliver service, the Alcoholism and Drug Dependency Commission has resolved the question of whether the patient fits the program structure or whether the program fits the needs of the patient. In this province, because of the emphasis on assessment before entry and because entry is channelled through trained staff using a common assessment instrument, the needs of the patient can be clearly identified. When the patient enters a Rehabilitation Program, whether it is in Ridgewood or Campbellton, these needs are addressed in conjunction with the treatment of their chemical dependency.

E. Discharge Criteria

There are a number of situations which arise during the course of a Rehabilitation Program that would result in a patient being discharged before the end of their program cycle. Some of these have been identified in the Admission Criteria, such as psychiatric problems and legal problems. If these should surface during their program to the extent that the person is unable to continue, then the person would have to be discharged to the appropriate community resource. At the same time, staff periodically encounter patients, who because of their needs, require an additional week or two of treatment. In cases like this, the staff request that the person not be discharged with the other patients.

Upon admission and assessment, if the patient does not meet the Admission Criteria, they would be discharged to the appropriate community resource, such as a Treatment Centre, psychiatric or general hospital, or an Out-patient counsellor. Once the problem is resolved, such as a mild intoxication, the person would then be considered for admission into the Rehabilitation Program provided the person was not three or four days late in entering.

The use of a mood altering substance during the program, such as alcohol or unprescribed or illicit drugs, will result in a patient being discharged. To do otherwise would be a tacit approval of this behavior. Other than this situation, there are others that only may result in discharge.

Since the decision to discharge a patient from a Rehabilitation Program is most serious, each case is dealt with on its own merits following a thorough analysis of the situation.

For example, if the person's behavior in the program is disruptive to the point where it is interfering with the progress of others and if the person refuses to or is unable to modify this behavior, then the person would be discharged and referred to an Out-patient counsellor.

As a result of their illness, some patients have a very high anxiety level and can't function well in a group milieu. To retain them in this milieu would enhance their anxiety and enhance their probabilities of relapse. If this situation arises, they are referred to their Out-patient counsellor, a setting in which they are more comfortable.

Under no circumstances is discharge from the program effected without the person being referred to some community resource, whether it is part of the Alcoholism and Drug Dependency Commission system or another part of the community health and social service network.

4.0.3 Inter-relationships and Referral Sources

There was no data found to determine the amount of inter-relationship by Rehabilitation staff with other groups or agencies. However, in both Saint John and Campbellton, Rehabilitation program therapists provide regular on-site consultations to staff at the Forensic Unit in Centracare and at the Restigouche Centre. In addition to this, there is a range of community resources that patients are referred to after discharge and staff would be involved in interacting with these external agencies. In the majority of cases, however, Rehabilitation program patients are referred for after care back to the Out-patient counsellor who referred them originally to Rehabilitation. At a later date, patients might be referred to other agencies from the Out-patient counsellor but that was beyond the scope of this study. This particular situation will be looked at in Phase III.

As part of our comprehensive Information Retrieval System, data is collected with respect to the referral source for each individual, ie, who actually made the formal referral to our Rehabilitation program. Table I below summarizes the reported referral sources.

TABLE I

REFERRAL SOURCES REPORTED AT ADMISSION
TO REHABILITATION PROGRAMS: 1984-85

SOURCE		PROPORTION REPORTING
1.	Commission Out-patient Counsellors	58%
2.	Employee Assistant Program/ Employer	11%
3.	Probation Services	10%
4.	Courts	5%
5.	Physician	3%
6.	Social Services	2%
7.	Alcoholism & Drug Dependency Treatment Facilities	2%
8.	Other	9%
		100%

4.0.4 Volunteerism

For many years, the field of addictions has realized that the support of the community, whether that support emanates from individuals or groups, is vital to the success of addiction services.

The degree of esteem that the community has for our services is indicated by the amount of volunteer support that has been found throughout the Commission's facilities. This has been acknowledged by the Chairman in various annual reports submitted to the Minister of Health and the Legislature.

Volunteerism can take many forms. It may be an individual answering the telephone at a facility, an alumnae group making a donation of a film screen to a facility; a community service club taking a leadership role in promoting a drug free life-style in conjunction with the Commission, or the thousands of A.A. and Al-Anon members who come to the Commission facilities to explain, to befriend, to transport patients to meetings or to sponsor.

In September-December 1984, a detailed tabulation was made of the extent of volunteer support. During that time frame, the last for which figures are available, 519 hours were contributed to the Commission's Treatment and Rehabilitation Centres. Many more hours were contributed to other services and programs.

The figure noted above is composed of the following types of activities as shown in Table II.

TABLE II

VOLUNTEERISM SURVEY
SEPTEMBER-DECEMBER 1984
SERVICES DELIVERED BY VOLUNTEERS

TYPES OF SERVICES	NO. OF TIMES REPORTED IN 4-MONTH PERIOD
1. A.A. meetings (in house)	128
2. Introduction to A.A.	31
3. Taking patients of Centre to A.A.	15
4. Al-Anon	12
5. Assisting in Treatment Centre	8
6. Spiritual Counselling	6
7. Visiting A.A.	6
8. "Family Program" presentation	3
9. Celebration of Mass	1
10. "Open House" assistance	1
	211

In the last year, alumnae groups have grown substantially in Moncton and St. Stephen as well as Saint John and Campbellton.

In summary, volunteers provide many valuable hours of service to the Commission's Treatment and Rehabilitation services.

A. Family Involvement, Employers et al.

Family involvement in Rehabilitation programming can take many forms. It may range from visiting the Rehabilitation patients and speaking with staff, visiting an Out-patient counsellor in the local area while the patient is "away for treatment", or it may be attendance at a formal Family Program.

It is inappropriate to suggest that family members, employers and significant others are part of the process of providing service. In most instances, they are receiving services from the Commission.

In many cases, family members were part of the intervention process which resulted in the patient entering a Rehabilitation program in the first place. As a result of this process, many come to seek help themselves for their own dependency or co-dependency problems.

Because of cramped quarters in Campbellton, an in-resident formalized family program is not possible. In Campbellton, while the patient is in a Rehabilitation program, an Out-patient counsellor works in tandem with the Rehabilitation therapists to ensure that the family is treated. This may happen at Campbellton or at another location. The concepts and resources discussed at Ridgewood are replicated by the Out- patient staff elsewhere in the province.

At Ridgewood, a formalized two-day Family Program is offered by Out-patient and Rehabilitation program staff on a regular basis. The sessions are sequenced so that family members of the 30 patients per month at Ridgewood can attend. In 1984-85, 494 persons attended these sessions.

It may be as a result of the heavy family involvement at the Family Program during Rehabilitation that relatively few Ridgewood patients, only 5%, reported involvement by their family in their recovery after Rehabilitation. In Campbellton, using the more detached Out-patient course of treatment, 62% reported family involvement after Rehabilitation programming.

4.0.5 The Relationship Between the Rehabilitation Program and the Rest of the Treatment Services Offered by the Alcoholism and Drug Dependency Commission

Throughout this report there are many references to the inter-relationship between the components of the Treatment Services network. Although referrals to a Rehabilitation program are restrictive and only occur via a Commission Out-patient counsellor, referrals from a Rehabilitation program can be channelled to a wide range of community resources, such as Mental Health Services, self-help groups, vocational counselling, or a combination thereof.

Because all parts of the Treatment Services network operate within the same policy framework, use the same referral mechanisms and have staff that are trained in the same approach, there is a similar response to the patients' needs. Because alcoholism manifests many behaviors that are challenges to staff as well as the community at large, it cannot be successfully approached in a parochial or ad hoc fashion. The nature of the illness, be it on a personal or community level, requires a common equitable approach across the province.

There have been occasions when insufficient documentation has been sent on a patient's referral, or a lack of communication has occurred between a Rehabilitation program and a distant facility or counsellor. These are often resolved between the two Centre Directors and/or a more senior person in the Treatment Services Division. These are not systemic problems, but are normal problems that occur from time to time in any human services system.

In summary, the relationship between the Rehabilitation programs and the rest of the network is positive and functional, as evidenced by the figures noted in other parts of this report.

4.0.6 The Rationale for Two Rehabilitation Programs

During the 1970's in Saint John and Campbellton, specific wards in the two existing psychiatric facilities had been designated for alcoholism treatment. When it was decided that free standing alcoholism treatment facilities would be operated directly by the province, Saint John and Campbellton were chosen as the "anchor" facilities.

Partially due to the availability of experienced staff, partially due to location and partially as a result of facilities being available at a nominal cost, the services in these two locations moved into what were then, modern quarters. Another reason was the realization that not only did alcoholics not belong in psychiatric facilities, but that they required a longer, more structured period of care than they had been receiving. A major commitment also made at that time was that provision for Rehabilitation programming in the French language had to be developed in this province. Although Campbellton never has been designated as the Francophone Rehabilitation Centre, it has offered French programs on an ongoing basis for the francophone population. In recent years, this need has increased.

Since the Alcoholism and Drug Dependency Commission began in 1978, there has been a qualitative improvement at both Rehabilitation facilities. Many reasons justify this, but paramount above others has been the commitment to provide a high level of quality services to people in their home community, or failing that, as close as possible. Clearly, the population base of the province does not justify a Rehabilitation program in every facility the Commission operates. But to adequately balance not only the demand for services but also the requirement for services in both languages, the decision to operate two Rehabilitation programs has constantly been reconfirmed as appropriate.

Our present occupancy rates, treatment outcome rates, waiting lists and the social and linguistic fabric of the province reinforce our view that only one Rehabilitation program in the province would prove to be too rigid and insensitive a setting to adequately respond to the multiplicity of needs we face. Two Rehabilitation locations offer a linguistic capability that is by definition, a necessity. It also offers a flexibility in programming for certain target groups that would be admittedly difficult in a single setting. Lastly, because of the sequencing of programs, we offer a Rehabilitation program starting almost every Monday at one of our two locations. In the field of addictions, the ability to respond to critical situations is of paramount importance. Sequencing would be impossible with only one facility since the bed capacity would be inadequate.

4.0.7 Quality and Quantity of Care

As a result of the involvement of the Donwood Institute in the development of the Ridgewood Rehabilitation program, a model was implemented for Rehabilitation programming in this province which, to the extent that resources allow, was replicated in Campbellton.

In this total health approach, the key staff are the therapists, associated counsellors from Out-patient services, registered nurses and physicians. In all of these staff categories, there exists a similarity in qualifications and amount of involvement in the programming, with one exception, the registered nurses. The reason for the difference is the physical layout of Ridgewood wherein the Rehabilitation patients are located in two separate pavilions. Registered nurses are physically located in each of the two Rehabilitation pavilions allowing for a greater involvement in Rehabilitation patient care than exists with the Campbellton nurses. This is offset, however, by the fact that in Campbellton, alcoholism attendants are on duty 16 hours a day Monday to Friday and 24 hours per day on the weekends. These staff are involved in patient care activities in the Rehabilitation program.

In five other situations, there exists notable staffing differences and these are as follows:

1. <u>Leisure and Relaxation Therapist:</u>

   This staff person is responsible for teaching stress management techniques to the 50 patients (20 Treatment and 30 Rehabilitation) at Ridgewood. In Campbellton, there are only a maximum of 7 patients in each of two groups at a time and the therapists provide this training themselves.

2. Audio-visual Technician:

This staff position is currently being phased out in Ridgewood. The duties will be assigned to the Leisure and Relaxation therapist and to the Recreation Leader. In Campbellton, the audio-visual duties are primarily performed by the Alcoholism Rehabilitation Counsellor.

3. Recreation Leader:

Because of the original function of the Ridgewood facility, there are a range of recreational capacities on site, such as a gymnasium and bowling alley. In Campbellton, the Alcoholism Rehabilitation Counsellor, which is not used in this capacity at Ridgewood, is responsible for taking the patients out for regular bowling and other recreation in the community.

4. Employment Counsellor:

This person spends 50% of his duties doing vocational counselling, especially with Saint John area patients, and making local area contacts with potential employers. This is a position funded by a federal government grant. This is one area that could be addressed in Campbellton but the possible efficacy of this is questionable, because a large percentage of Campbellton Rehabilitation patients come from other than the Campbellton area.

5. Alcoholism Rehabilitation Counsellor:

This position is essentially an assistant to the two therapists in Campbellton and performs a variety of functions similar to the four previous positions.

In summary, the differences in quantity and quality of care are minimal. Both locations employ similar diagnostic and assessment procedures and use a similar format. As with any large facility, there tends to be some greater degree of institutionalization at Ridgewood. That difference does exist between the two facilities although staff make every effort to overcome it. Another notable difference is that there is a greater emphasis on the use of protective drugs at Ridgewood compared to Campbellton.

Because of its limited space, Campbellton cannot provide a formal family education program and relies upon Out-patient counsellors to do this on a case by case basis.

Although these differences have been identified, they do not appear to be serious enough to jeopardize the quality and quantity of care, which would be reflected in the treatment outcome. When a comparison was performed, the difference in treatment outcome between the two facilities was insignificant. This is examined in detail in Section 4.2 of this report.

Both programs have some intrinsic differences which reflects the collective views and wisdom of the staff groups in both locations. This is not to imply that one is relatively "better" than the other. They are different, which is a very real strength. If anything, it clearly implies a sensitivity to the patients that each program serves as well as the staff who work in those locations.

4.0.8 Staff Years

At Ridgewood, 7.85 staff years are required to deliver a Rehabilitation Program. In Campbellton, 5.20 staff years are required.

The difference of 2.65 staff years is due to the different staffing patterns, as noted in the immediately preceding section (4.0.7). It is also due to the fact that in Campbellton, some staff years are allocated at the same time to both programs which tends not to happen in Ridgewood because the two groups are more separated.

The Table below refers to staff years only, not to staff year equivalents provided by volunteers. If combined, an additional 0.15 staff years would be realized in each location for each program, or a total of 0.6 staff years per month.

The following is a detailed display of the staff years utilization at each facility.

TABLE III
STAFF YEARS

STAFF POSITION	RIDGEWOOD	CAMPBELLTON
Social Worker I-II	2.7	1.8
Alcoholism Rehabilitation Counsellor	-	0.9
Head Nurse	0.6	0.15
Staff Nurse	9.0	0.1
Leisure and Relaxation Therapist	0.7	-
Audio-Visual Technician	0.9	-
Recreation Leader	0.7	-
Employment Counsellor	0.5	-
Alcoholism Attendant	-	3.2
Out-patient Counsellor	0.3	0.1
Physician	0.2	0.2
Research Aide	0.1	0.1
	15.7*	6.55**

* 7.85 staff years for each Rehabilitation Program.

** Of this allocation of 6.55, 5.20 would be required for each program. Some staff years are allocated to both programs at the same time, i.e., Head Nurse .15.

4.0.9 Patient/staff Ratio and Staff/hour Ratio

The patient/staff ratio at Ridgewood is 15 patients per 7.85 staff or 1:0.52.

In Campbellton, the patient/staff ratio is 7 patients per 5.20 staff or 1:0.74.

At both locations, most of the human resources are allocated throughout the day, Monday to Friday, when the majority of patient centered activities take place. At Ridgewood, this would be 4.0 staff per block of time, 8:30 to 4:30, Monday to Friday. In Campbellton, this would be 2.45 staff.

In the evenings and on weekends the staff ratio changes. Certain programming activities take place but on a reduced level. These are activities such as homework, personal health plan development, recreation, orientation, etc. At both locations the staff/hour ratio is 1.0 during this block of time.

4.0.10 Staff Qualifications

At Ridgewood, the qualifications of Rehabilitation Program Staff are as follows:

STAFF POSITION	QUALIFICATIONS, ET AL.
Social Worker I-II	M.S.W.
Social Worker I-II	M.A., R.S.W.
Social Worker I-II	M.A., R.S.W.
Senior Head Nurse	R.N., B.S.W. in process
Staff Nurses (9)	R.N. Of these 9, 1 has completed the B.Sc.N. and another is in process.
Physician	M.D., F.A.C.S., F.R.C.S. (C)
Out-patient Counsellor	B.A., Cert. in Social Work.
Out-patient Counsellor	R.N., B.A. in process
Out-patient Counsellor	B.S.W. in process
Research Officer	B.A.
Employment Counsellor	B.A.
A/V Technician	Grade X
Recreation Leader	Grade X
Relaxation Therapist	Grade X, Cert. in Stress Management.

In Campbellton, the qualifications of Rehabilitation Program staff are as follows:

STAFF POSITION	QUALIFICATIONS, ET AL.
Social Worker I-II	B.S.W.
Social Worker I-II	B.A.
Head Nurse	R.N.,Cert. in Psychiatric Nursing.
Staff Nurses (5)	R.N.
Physician	M.D.,F.R.C.S. (C)
Out-patient Counsellor	Grade XII
Research Officer	Grade XII
Alcoholism Rehabilitation Counsellor	Grade X
Alcoholism Attendant	Grade X

4.0.11 Staff Training and Development Activities

In both locations, a range of staff training experiences have been offered to staff. The type of experience depends upon their role. However, courses have been offered to all staff on occasion.

COURSE OFFERED	DESCRIPTION	TARGET GROUP
1. Core Knowledge in Addictions	A condensed extension course offered by the Commission and St. F.X. University. This is a national program covering the basic knowledge areas in addictions.	All staff
2. Alcoholism Counsellor Training	A week long course offered by the Commission directed towards enhancing the counselling skills of staff. This is a National Program.	All Treatment & Community Services staff.
3. Management I - II	Four day course offered by The Board of Management on Management Skills.	Managers, Supervisors.
4. Nursing Unit Administration	Four day workshop on Nursing Supervision & Administration	Supervisory Nursing Personnel.
5. "Its Just Your Nerves".	Three day course on Women & Addiction offered by National Health & Welfare	Specific Treatment & Community Services staff.
6. Crisis Intervention	Week long course on marshalling community resources to respond to family crises.	Specific Counselling staff in Campbellton.
7. Women's Groups	Two day workshop on skill development in offering aftercare groups for Women.	Specific female staff.

COURSE OFFERED	DESCRIPTION	TARGET GROUP
8. Cardio-Pulmonary Resuscitation	Two day course offered annually.	Various staff but primarily nurses and attendants.
9. Work Planning and Evaluation	One day in-service on Performance Appraisal.	All staff.
10. Phlebotomy	One day in-service on drawing blood samples.	Registered nurse.
11. Suicide Prevention	Two day workshop offered by Department of Justice.	Various Treatment staff.
12. Work with Troubled Youth	One day workshop on working with Youth.	Various counselling staff.
13. Myths and Needs of Adolescents	One day workshop on working with Youth.	Various Counselling Staff.
14. Various Regional and National Conferences	Varies.	Specific staff, depends on duties and type of conferences.

4.1 Outputs of Rehabilitation Programs

4.1.1-3 Rehabilitation Program Clientele

The following tables present the number of admissions, patient days, occupancy rates and average stays for each of the Rehabilitation Programs over the past three years.

TABLE IV

CAMPBELLTON REHABILITATION PROGRAM

YEAR	ADMISSIONS		PATIENT DAYS		OCCUPANCY RATE		AVERAGE STAY	
	M	F	M	F	M	F	M	F
82-83	85	14	1833	279	57%	55%	21.6	20.0
83-84	122	18	2389	323	79%	64%	19.6	17.9
84-85	129	25	2401	395	79%	78%	18.5	15.8

TABLE V

RIDGEWOOD REHABILITATION PROGRAM

YEAR	ADMISSIONS		PATIENT DAYS		OCCUPANCY RATE		AVERAGE STAY	
	M	F	M	F	M	F	M	F
82-83	283	74	6264	1430	87%		22.1	19.3
83-84	270	56	6296	1120	81%		23.3	20.0
84-85	262	64	5946	1396	80%		22.7	21.8

Profile of Population

Table VI presents a demographic profile of the total Rehabilitation population for the 1984-85 fiscal year.

TABLE VI

PROFILE OF REHABILITATION POPULATION
ALL PATIENTS ADMITTED 1984-85

VARIABLE		NO. ADMITTED TO PROGRAMS	PERCENTAGE OF TOTAL
Sex:	M	391	81.5%
	F	89	18.5%
		480	100.0%
Marital Status:			
Single		196	40.8%
Married		143	29.8%
Divorced		52	10.8%
Separated		62	12.9%
Widowed		10	2.1%
Common Law		17	3.5%
		480	100.0%
Education:			
0-6 years		42	8.8%
0-7 years		163	34.0%
10-12 years		211	44.0%
Vocational		4	0.8%
Business		1	0.2%
Technical		16	3.3%
1-4 yr. University		24	5.0%
University Degree		15	3.1%
Prof/Grad School		4	0.8%
		480	100.0%
Financial Support:			
Job		150	31.3%
Family		34	7.1%
Public Assistance		142	29.6%
U.I.C.		84	17.4%
None		31	6.5%
Other		39	8.1%
		480	100.0%

Table VI (cont'd)

VARIABLE	NO. ADMITTED TO PROGRAMS	PERCENTAGE OF TOTAL
Age Groups:		
18 or younger	8	1.7%
19-29	151	31.5%
30-39	160	33.3%
40-49	90	18.8%
50-59	55	11.5%
60-65	9	1.9%
65 or older	7	1.5%
	480	100.0%
County/Prov. of Origin:		
Albert	0	0.0%
Carleton	6	1.3%
Charlotte	15	3.1%
Gloucester	60	12.5%
Kent	19	4.0%
Kings	25	5.2%
Madawaska	10	2.1%
Northumberland	27	5.6%
Queens	3	0.6%
Restigouche	49	10.2%
Saint John	144	30.0%
Sunbury	4	0.8%
Victoria	2	0.4%
York	33	6.9%
Westmorland	69	14.4%
Newfoundland	7	1.5%
Quebec	7	1.5%
	480	100.0%

4.1.4 Referral Targets

Following the Rehabilitation Program the majority of patients are referred on for post-rehabilitation care, either within the Commission or outside i.e., other service agencies, self-help groups, physicians, etc. Table VII summarizes the referral targets reported for Rehabilitation Program separations during 1984-85.

TABLE VII

POST-REHABILITATION PROGRAM
REFERRAL TARGETS FOR 1984-85 CLIENTELE

REFERRAL TARGET	PROPORTION REFERRED	
	M	F
Alcoholism and Drug Dependency Commission Out-patient services	76%	75%
Physician	2%	4%
Long-term care	1%	--
Chemo-therapy(Antabuse/Temposil)	53%	52%
A.A.	40%	35%
Other Social Agency	1%	5%

Attrition Rate

Attrition, or failure to complete the Rehabilitation Program, is a negative outcome for a program. The following table presents the reported reasons for separation from the Rehabilitation facilities.

TABLE VIII

REPORTED REASONS FOR SEPARATION FROM REHABILITATION PROGRAMS: 1984-85

REASONS	NO. AT CAMPBELLTON	NO. AT RIDGEWOOD	TOTAL	%
Program completed	124	277	401	84%
Terminated by Staff	16	18	34	7%
Transferred	3	4	7	1%
Terminated by Client	11	27	38	8%
	154	326	480	100%

Sixteen percent of patients admitted to the Rehabilitation Programs did not complete the program, and half of those who did not complete left by their own volition.

Both patient factors and program factors are related to attrition. Patient factors such as youth, social stability, and finances have been found to be related to failure to complete a program. Also treatment variables such as program duration and size of treatment groups influence the drop out rate.

Attrition can be reduced by improving program design and by improved patient selection[2].

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[2]From the Fifth Special Report to the U.S. Congress on Alcohol and Health as summarized in Alcohol Health and Research World, Vol. 9, #1, 1984.

4.2 Impact of the Rehabilitation Programs

4.2.1 Follow-up Study

In order to determine the effect of Rehabilitation Program involvement on clientele a follow-up survey was designed for use at both centres. All patients who went through the Rehabilitation Programs during the months of January and February, 1985 were contacted 6 months after the Rehabilitation Program's completion and pertinent information was gathered. Of particular interest was whether or not the patient was abstaining from alcohol and other drugs; whether or not the patient was using Antabuse, attending Out-patient counselling sessions, and/or AA, and whether the family was actively involved in the treatment process. Further, involvement with social service agencies, physicians, the judicial system, etc., was of interest. For the purposes of comparison, information on each patient's activities in the six months prior to the Rehabilitation Program was collected from individual files.

Abstinence was the treatment goal. Research has shown that patients who maintain abstinence report improved relationships with their family, friends, and employers, as well as overall improvements in self-image, job performance, physical health, life enjoyment and community participation.

The results of this study showed an abstinence rate of 50% among the sample of Commission Rehabilitation clientele, which is well within the range reported in the literature. Although it is not possible to determine from this study why half of the patients abstained and half resumed drinking/abusing drugs, the socio-economic status and social stability of the individual patients are important factors that must be taken into consideration when reviewing treatment outcome. Research has shown that in-patient alcoholism programs are effective for

socially stable, middle-class alcoholics. Negative extra-treatment factors, i.e., lack of a job, loss of a family, etc., do not create favorable conditions for recovery. These observations reinforce the need for programs directed toward earlier identification and referral, such as Employee Assistance Programs.

The profile given in the previous section (4.1) shows the high rates of divorce and separation, dependence on public assistance and U.I.C., and low educational achievement levels that exist among the Rehabilitation clientele. Because the Commission's clientele cannot be screened on the basis of success potential, there will always be participants in the Rehabilitation Program who have a relatively lower probability of recovery.

Findings from the follow-up survey show a reduction in the use of medical and detoxication services in the six months following the Rehabilitation Program compared to the six month period before Rehabilitation.

Also the importance of involvement with after-care services in the Post-Rehabilitation period was demonstrated. Patients involved in AA, taking Antabuse, and attending Out-patient counselling sessions were much more likely to have remained sober than were other patients.

A detailed report on this study is presented in Appendix III of this paper.

4.2.2 Readmission Rate

Sixty-five males, 16.6% of the male Rehabilitation Program population, and 12 females, 13.4% of the total female Rehabilitation Program population had had a previous admission to a Rehabilitation Program. Table IX presents a breakdown of the number of readmissions by Centre and by sex.

. TABLE IX

READMISSIONS TO REHABILITATION PROGRAMS BY SEX, 1984-85

CENTRE		POPULATION	NUMBER OF CLIENTS READMITTED	% OF TOTAL CLIENTELE
Campbellton	M	129	28	21.7%
	F	25	5	20.0%
Ridgewood	M	262	37	14.0%
	F	64	7	10.9%
		480	77	16.0%

4.2.3 Socio-Economic Profile of Rehabilitation Program Clientele Compared to Total In-patient Population Profile

For the purposes of comparison the following table shows the demographic profiles of the Rehabilitation program population and the total in-patient population during 1984-85.

Note that the Rehabilitation population reported proportionally more females; more single and married patients with fewer patients reporting that they were separated or divorced; more persons with higher levels of academic achievement; more patients employed and fewer on public assistance; and more patients in the younger age groups than did the total in-patient population.

TABLE X

DEMOGRAPHIC PROFILES OF THE REHABILITATION AND TOTAL IN-PATIENT POPULATIONS FOR 1984-85

VARIABLE	ALL IN-PATIENT ADMISSIONS	REHABILITATION PROGRAM ADMISSIONS
Sex:		
Male	85.5%	81.5%
Female	14.5%	18.5%
Marital Status:		
Single	35.7%	40.8%
Married	24.7%	29.8%
Divorced	14.4%	10.8%
Separated	17.3%	12.9%
Widowed	4.1%	2.1%
Common-law	3.8%	3.5%
Education:		
0-6 years	16.0%	8.8%
7-9 years	38.1%	34.0%
10-12 years	37.6%	44.0%
Vocational	0.4%	0.8%
Business	0.3%	0.2%
Technical	1.7%	3.3%
1-4 years University	3.5%	5.0%
University Degree	1.9%	3.1%
Prof/Grad. School	0.5%	0.8%

Table X (cont'd)

VARIABLE	ALL IN-PATIENT ADMISSIONS	REHABILITATION PROGRAM ADMISSIONS
Financial Support:		
Job	23.9%	31.3%
Family/Spouse	4.4%	7.1%
Public Assistance	36.8%	29.6%
U.I.C.	16.7%	17.5%
Other	18.2%	14.5%
Age Group:		
18 or younger	1.5%	1.7%
19-29 years	19.4%	31.5%
30-39 years	27.1%	33.3%
40-49 years	22.8%	18.8%
50-59 years	17.7%	11.5%
60-65 years	6.5%	1.9%
Over 65	5.1%	1.5%

4.2.4 A Comparison to New Brunswick Population Norms

The Rehabilitation program population represents a distinct group in the province. Compared to provincial norms (Statistics Canada, 1981 Census) a high percentage of Rehabilitation clientele are divorced: 9.7% of Rehabilitation male admissions and 15.7% of Rehabilitation female admissions report being divorced compared to 1.9% of the male population in New Brunswick and 2.4% of the female population.

In New Brunswick 71.1% of the male population and 44.1% of the female population are in the labour force (1981 Census).

Among the Rehabilitation program population (1984-85) only 34.5% of males and 16.9% of females report that they are employed.

4.2.5 A Sub-Population at Risk

The most recent data available[3] shows that one in three alcoholics in New Brunswick is female. Yet females represent less than one in five of the admissions to Commission Rehabilitation programs.

Over the past ten years, New Brunswick was the only province east of Manitoba demonstrating an increase in the rate of female alcoholism per 100,000 population. These figures are based upon rates of death due to cirrhosis of the liver. Interestingly, national figures show no change in the rate of female alcoholism during this ten year period (1971-81).

Not only is the rate of female alcoholism increasing, New Brunswick has the highest actual number of female alcoholics in the Atlantic region, according to Addiction Research Foundation tables. See TABLES XI & XII for detailed information.

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[3]Compiled by the Addiction Research Foundation of Ontario, 1985 and is based on 1981 data.

TABLE XI

A SUB-POPULATION AT RISK:
THE NUMBER OF FEMALE ALCOHOLICS
IN NEW BRUNSWICK: A COMPARISON
OF 1971 TO 1981 ESTIMATES

NUMBER OF ALCOHOLICS* IN NEW BRUNSWICK

SEX	1971	1981	CHANGE
Males	6450	7500	+16%
Females	2450	3900	+59%

NUMBER OF ALCOHOLICS* IN NEW BRUNSWICK PER 100,000 POPULATION

SEX	1971	1981	CHANGE
Males	3600	3400	-5%
Females	1350	1700	+26%

In 1971 females made up 27.5% of the total Alcoholic population. By 1981 females made up 34.2% of the Alcoholic population in New Brunswick.

* These estimates were made according to the Jellinek formula and were taken from Table 43 of Statistics on Alcohol and Drug Use in Canada and Other Countries, Vol. 1, Addiction Research Foundation: Toronto, 1984.

TABLE XII

ESTIMATED PREVALENCE OF ALCOHOLISM
IN NEW BRUNSWICK AND CANADA 1971-81
ALCOHOLICS PER 100,000 POPULATION AGE 20+

YEAR	NEW BRUNSWICK	CANADA
1971	2,500	3,400
1972	2,500	3,600
1973	2,800	3,900
1974	2,900	4,200
1975	2,800	4,200
1976	3,000	4,200
1977	3,200	4,100
1978	3,100	4,000
1979	2,900	3,800
1980	2,700	3,700
1981	2,500	3,600

Estimates are based on the Jellinek formula. Data adapted from Table 44 in Statistics on Alcohol and Drug Use in Canada and Other Countries. Vol. 1, Addiction Research Foundation: Toronto, 1984.

4.2.6 Trends in the Addictions Field in New Brunswick

A general trend in the data with respect to all in-patients admitted to Commission Facilities, i.e. both Rehabilitation and Treatment facilities, is an increase in the proportion of younger patients. Over the past five years the proportion of patients 18 years and younger rose from 0.5% to 1.5%; of 19-29 year olds, from 11.6% to 19.4% and of 30-39 year olds from 21.3% to 27.1%. A proportional drop was noted among the older groups with the proportion of 40-49 year olds dropping from 24.7% to 22.8%; the proportion of 50-59 year olds dropping from 25.6% to 17.7%; the 60-65 years group dropping from 8.9% to 6.5% and the 65 years plus group dropping from 7.0% to 5.1% of the total in-patient population. Please refer to Figure 3, on page 52.

This trend is also evident in the Rehabilitation population. In 1980-81, 52.5% of the males and 54.5% of the females admitted to the Rehabilitation programs were under the age of 40, while in 1984-85, 65.2% of the males and 71.9% of the females admitted to the programs were under the age of 40. Please refer to Figures 4 and 5, on pages 53 and 54.

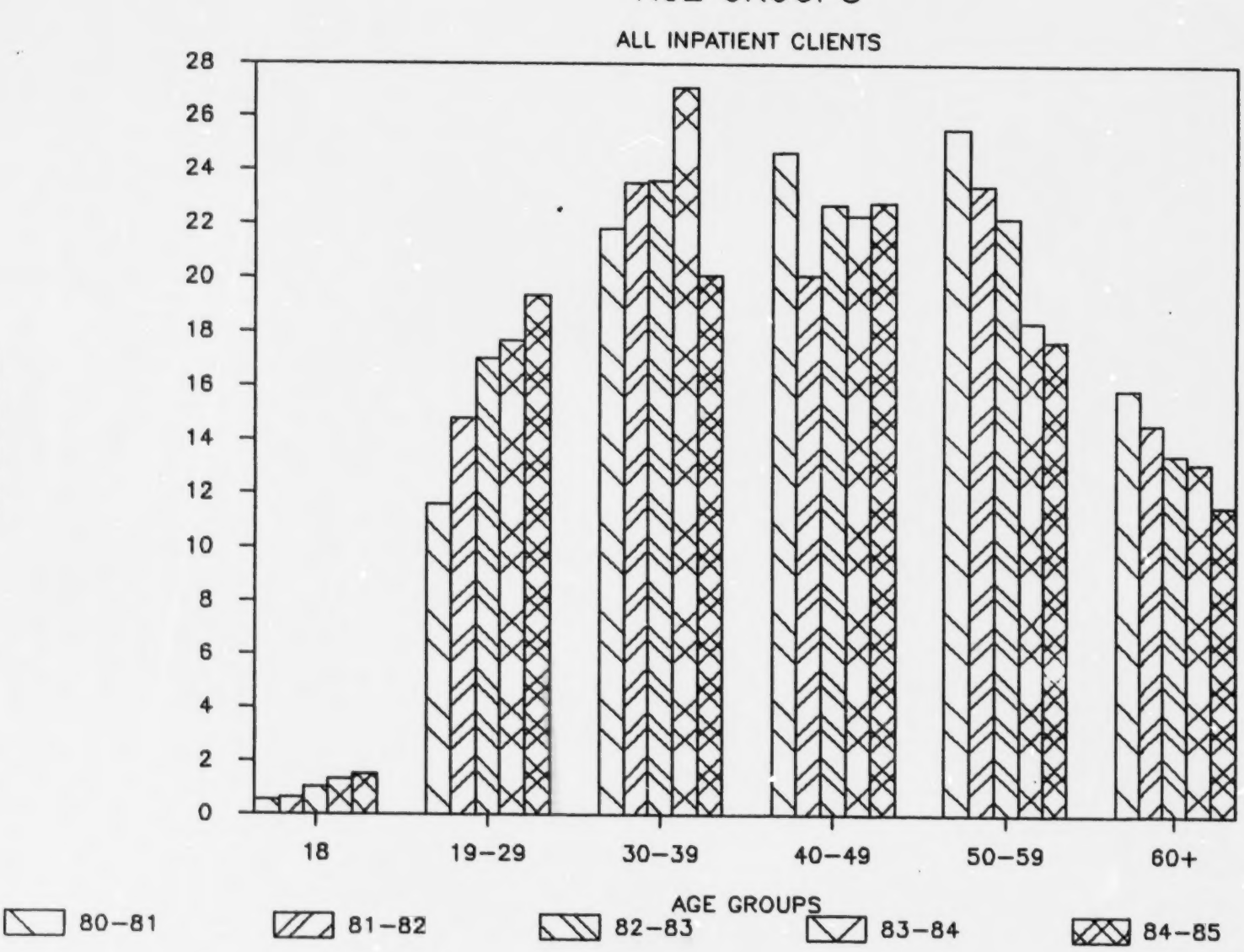


Figure 3. Age Groups: All Inpatients

Figure 4. Age Groups: Males Admitted to a Rehabilitation Program.

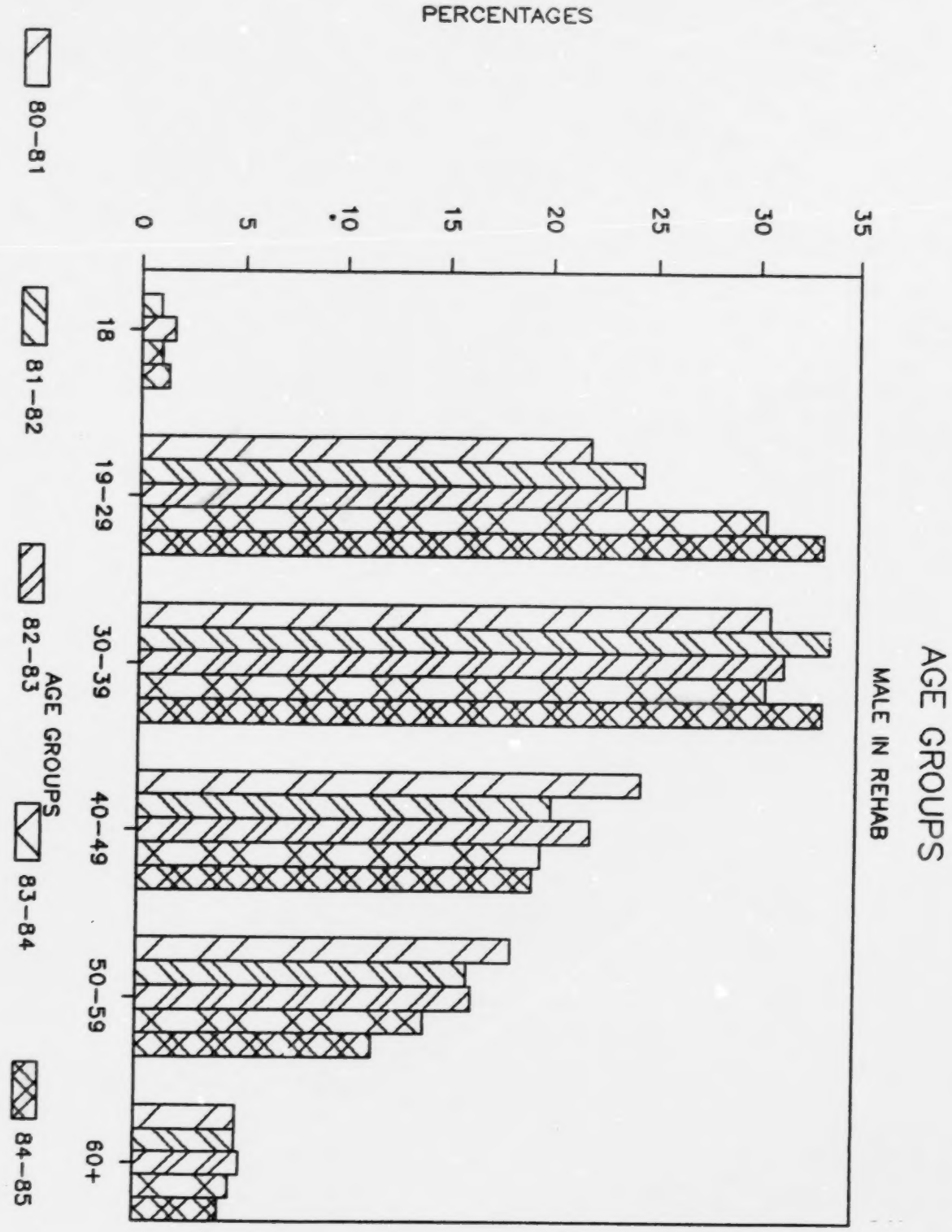
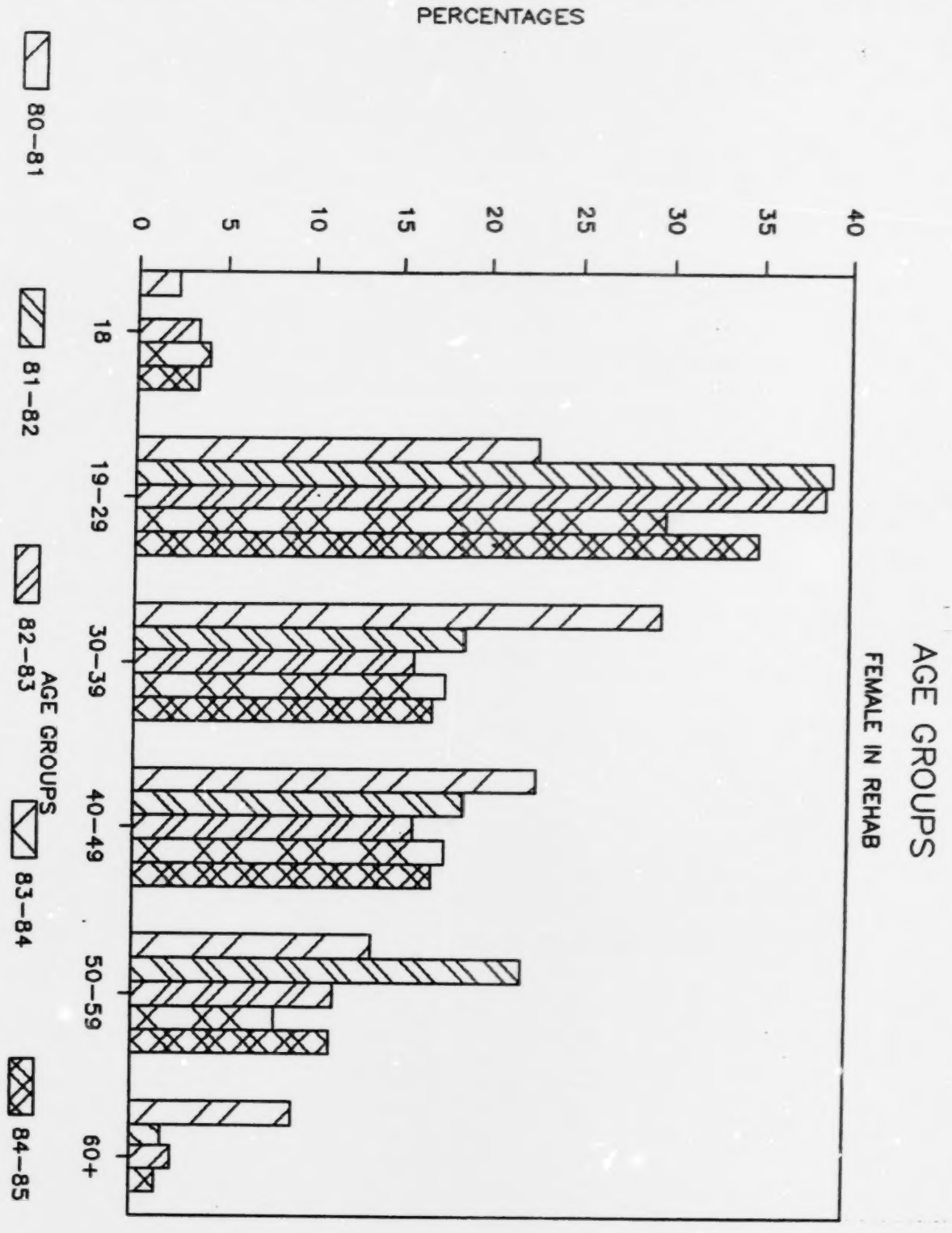


Figure 5. Age Groups: Females Admitted to a Rehabilitation Program



These findings speak positively for the Commission's promotion of early intervention into an addiction problem. Arresting the problem early in the alcoholic or drug abuser's life results in a better chance of recovery because many of the negative environmental factors (i.e. loss of job, loss of family) have not yet occurred. A recent report from the National Institute on Alcohol Abuse and Alcoholism[4] has stated: "For patient populations in which highly negative extra-treatment factors associated with social instability and low socio-economic class standing are minimal or absent, alcoholism treatment has been shown to be highly effective in producing sustained abstinence at follow-up and improved psycho-social adjustment on a variety of outcome measures".

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[4]From a Summary of the Fifth Special Report to the U.S. Congress on Alcohol and Health, in Alcohol Health & Research World, Volume 9, No. 1, Fall 1984.

4.3 Cost Benefit Analysis

4.3.1 Cost Components of the Rehabilitation Programs

The following tables (XIII-XVI) present a break-down of the costs of operating the two Rehabilitation Programs based on the 1984-85 Budget.

TABLE XIII
COST COMPONENTS OF THE PROGRAM
CAMPBELLTON REHABILITATION

Staffing	$187,457.80
Utilities	2,525.40
Laundry Services	1,322.40
Other Services	485.68
Cleaning Services	442.55
Transport and Storage Services	884.16
Postage	111.97
Professional Services	216.96
Printing and Copying	129.36
Rentals	981.42
Repair Services	776.50
Telephone Services	2,618.95
Travel Expenses	994.25
Subscriptions	37.00
Education/Teaching Materials	46.08
Food	17,530.00
Heating Fuel	2,410.00
Household and Cleaning Supplies	2,125.95
Medical Supplies	905.54
Other Supplies	195.24
Stationery	229.01
Staff Benefits, Casuals, etc.	22,317.73
TOTAL EXPENDITURES	$244,743.95

Per patient per day cost:

($244,743.95 / 365 days / 14 beds) = $47.90

TABLE XIV

COST COMPONENTS OF THE PROGRAM

CAMPBELLTON REHABILITATION STAFFING

3 Physicians ($49.40/hr x 150.6 hrs = $7,287.00)	20% =	$ 1,457.40
2 Social Workers ($22,456 + $29,900 = $52,356)	85% =	44,502.60
2 Alcoholism Attendants ($20,716.80 + $20,207.25)	100% =	40,924.05
1 Alcoholism Rehab. Counsellor ($21,658.53)	85% =	18,409.75
3 Relief Attendants (2340 hours @ $11.75)	100% =	27,495.00
1 Centre Director ($29,375.00)	20% =	5,875.00
5 Nurses (4 full-time + 1 part-time)	5% =	5,525.72
1 Head Nurse ($31,851.43)	15% =	4,777.71
1 O.P.D. Social Worker ($26,455.00)	10% =	2,645.50
2 Cooks ($17,768.40 + $18,608.54 = $36,376.94)	50% =	18,188.47
1 Custodial Worker ($16,614.00)	50% =	8,307.00
1 Utility Worker ($18,699.20)	50% =	9,349.60
TOTAL EXPENDITURES		$187,457.80

Per patient per day staff cost:

($187,457.80 / 365 days / 14 beds) = $36.68

TABLE XV

COST COMPONENTS OF THE PROGRAM

RIDGEWOOD REHABILITATION

Staffing	$488,870.62
Advertising	100.00
Freight and Haulage	200.00
Utilities	10,036.00
Laundry Services	9,473.00
Catering Services	154,994.00
Other Services	676.38
Cleaning Services	27,669.00
Commissionaire Services	9,133.00
Transport and Storage Services	1,002.00
Professional Services	200.00
Printing and Copying	425.72
Rentals	1,072.00
Repair Services	1,769.00
Telephone Services	6,492.00
Travel Expenses	3,000.00
Subscriptions	112.75
Clothing	137.12
Education/Teaching Materials	153.80
Heating Fuel	29,642.00
Household and Cleaning Supplies	6,358.00
Drugs/Medications	6,329.08
Other Supplies	1,231.30
Stationery/Lumber Supplies	1,755.54
Structural Materials	1,721.78
Desks/Tables/Chairs	516.75
TOTAL EXPENDITURES	$763,070.84

Per patient per day cost:

($763,070.84 / 365 days / 30 beds) = $69.69

TABLE XVI

COST COMPONENTS OF THE PROGRAM

RIDGEWOOD REHABILITATION STAFFING

3 Social Workers ($89,104.80)	90% =	$ 80,194.32
1 Relaxation Therapist ($10,370.25)	70% =	7,259.17
1 A/V Technician ($22,117.77)	90% =	19,905.99
1 Recreation Leader ($19,389.49)	70% =	13,572.64
1 Admission Officer ($20,806.50)	50% =	10,403.25
1 Physician ($56,659.40)	20% =	11,331.88
3 O.P.D. Staff ($83,325.15)	10% =	8,332.51
1 Senior Head Nurse ($33,170.50)	60% =	19,902.30
9 Staff Nurses ($31,185.54)		
($31,065.01)		
($29,195.25)		
($29,258.80)		
($29,509.63)	100% =	242,021.15
($30,779.79)		
($30,174.70)		
($27,724.49)		
($ 3,127.94)		
Casuals, Shift Differentials, Benefits	=	75,947.41
TOTAL EXPENDITURES		$488,870.62

Per patient per day staff cost:

($488,870.62 / 365 days / 30 beds) = $44.64

4.3.2 Per Diem Rates for Rehabilitation Program Compared to Rates for Other Commission Services

The components used in determining per patient per day costs for Rehabilitation and Treatment Programs as well as Out-patient department and administration costs are as follows:

1) Staffing - Based on job descriptions and supervisors estimates of percentage of time allocated to each program component. Included separately are costs associated with benefit packages.

2) Other Costs - The following budget items can equitably be distributed among all program components:

Freight and Haulage
Utilities
Transport and Storage Costs
Printing and Copying
Cleaning Services
Rentals
Repair Services
Telephone Services
Education/Teaching Materials
Travel Expenses
Supplies
Stationery
Other Supplies
Lumber
Structural Materials
Desks/Tables/Chairs

Costs that can be directly charged to in-patient programming include:

Laundry Services
Catering Services
Drugs/Medications

Costs that can be directly charged to in-patient and administration:

Commissionaire Services
Heating Fuel
Clothing Allowances
Garbage Removal
Transportation and Storage

Costs directly related to administration include:

Courier Services
Membership, Dues and Fees
Postage
Motor Vehicle Repairs
Agricultural Supplies

The following table presents the per diem rates for each of the Rehabilitation programs, as well as the rates for Detoxication and Out-patient services given at these facilities. For comparison purposes, the average costs (in Canadian dollars) for these services[5] in the United States are presented.

TABLE XVII

PER DIEM RATES: 1984-85

SERVICE	RIDGEWOOD	CAMPBELLTON	NIAAA REPORT
Rehabilitation	$ 69.69	$ 47.90	$ 90.25*
Detoxication	60.03	82.52	83.00*
Out-patient Counselling Services**	23.58	40.23	53.33*

* Canadian dollars at exchange rate of 1.3675

** Out-patient services costs are on a per patient contact basis

Average in-patient per diem rates (Rehabilitation and Detoxication rates combined) are comparable for both Rehabilitation centres, i.e. the average rate at Campbellton is $65.06 per patient day, and for Ridgewood it is $64.85 per patient day. By comparison, the average U.S. cost for in-patient services, i.e. Rehabilitation and Detoxication combined, is $86.63 Canadian.

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[5]Adapted from data collected by the National Institute on Alcohol Abuse and Alcoholism and the Health Care Financing Administration and reported in Alcohol Health & Research World, Winter, 1984/85.

4.3.4 Benefits of the Rehabilitation Programs

The findings from our 6 month follow-up study provide an example of the reduction in the use of services that can occur following involvement with a Rehabilitation Program.

Using our sample population as the example, and the average costs of services from other agencies, the following cost benefits are shown:

1) Our sample reported 23 visits to a Mental Health Clinic in the 6 months prior to the Rehabilitation Program. The average cost per visit is $55/hr, resulting in a total cost of $1,265.00 for these visits. In the 6 month post-Rehabilitation period, 13 visits were made, at a total cost of $715. The decrease in cost was $550;

2) The sample patients reported 95 visits to a doctor in the 6 month pre-Rehabilitation period at an average cost of $12.35/visit. These patients were responsible for $1,175.25 worth of care. During the 6 months post-Rehabilitation period these persons made 33 visits, at a total cost of $407.55. The resulting difference was $767.70.

3) These patients reported 62 admissions to detoxication facilities in the 6 month pre-Rehabilitation period and only 19 in the post-Rehabilitation period. At a cost of $356.38 per 5-day stay, the difference was $15,324.

In these three areas alone a $16,642 difference was found. Assuming that this pattern holds true for all Rehabilitation program participants, over a year a $100,000 difference could be shown between pre- and post-Rehabilitation health care costs when comparing the 6 months before and after the program.

The sixty-five percent (65%) reduction in doctor's visits and the sixty-nine percent (69%) reduction in admissions to detoxication facilities among the study sample confirm the cost-benefits with respect to health care costs. Similar reductions in costs have been demonstrated in a number of studies done in the U.S., resulting in a statement made in the Fifth Special Report to the U.S. Congress on Alcohol and Health in 1984, to the effect that the benefits of alcoholism treatment clearly outweigh its costs.

An estimate of the economic costs of alcohol abuse to New Brunswick is given in Table XVIII.

TABLE XVIII

ECONOMIC COSTS OF ALCOHOL ABUSE TO NEW BRUNSWICK
ESTIMATES* FOR 1982-83

FACTORS	COST IN MILLIONS OF DOLLARS
Health Care	66.0
Social Services	39.0
Lost Production	47.0
Motor Vehicle Accidents	2.5
Fire Losses	8.1
Criminal Justice System	3.7
Alcoholism and Drug Dependency Commission	5.3
	$177.6

* All estimates are based on formulas presented in The Cost of Alcohol Abuse to New Brunswick, Research & Information Division of A. & D.D.C. of N.B., July 1982. All sources are up-dated to 1982-83.

5.0 Conclusions

5.0.1 Conclusions

The goals and objectives of the Rehabilitation Program are outlined on page iii of the Executive Summary of this report.

The conclusions that can be drawn from this program evaluation are as follows:

1. The Rehabilitation Programs operated by the Alcoholism & Drug Dependency Commission of New Brunswick have treatment outcomes that are among the highest in the country. This is evidenced by the following:
   - A. Total Abstinence - Fifty percent (50%) of the sample reported total abstinence six months after Rehabilitation.
   - B. Life-style Improvement - Seventy-six percent (76%) reported life-style improvement following rehabilitation.
   - C. Motivation Indicators - Over fifty percent (50%) reported A.A. involvement and the use of protective drugs (Antabuse/Temposil) after Rehabilitation. Over seventy-five (75%) used Out-patient, after-care counselling. These are indicators of the patients' level of motivation.
   - D. These figures are achieved in spite of the fact that a significant percentage of patients have already lost their job and family.

2. Family involvement after rehabilitation is not as high as it could be. Only 20% of the sample reported family involvement.

3. The occupancy rate of 78% and the attrition rate of 16% indicate the programs are positively regarded by clientele and the programs retain them in care once they are admitted.

4. Female alcoholism is increasing in this province at an alarming and dangerous rate. The number of female alcoholics has increased at least 59% from 1971 to 1981, from 2,450 to 3,900 in real numbers. The number of female alcoholics per 100,000 population has grown from 1,350 in 1971 to 1,700 in 1981, an increase of 26%. Whereas in 1971, female alcoholics represented only 27.5% of the alcoholic population, in 1981 they represented 34%.

5. The age of Rehabilitation program clientele is decreasing on an annual basis; one of the positive effects of early identification, intervention and education programs. The percentage of younger people entering Rehabilitation programs has been steadily increasing in the last five years.

6. Alcoholism treatment programs have implications for other sectors of the health care system and save health care dollars.

7. A high standard of quality and quantity of care is delivered to Rehabilitation program patients.

8. The Treatment Services system is organized in such a fashion that it fosters a common standard of care and an equitable access to services across the province.

5.0.2 Implications of these Conclusions

These conclusions have a number of implications for the mandate of the Alcoholism and Drug Dependency Commission. These are as follows:

1. Greater resources should be assigned to increase the utilization of services by women due to the increase in female alcoholism.

2. Greater resources should be assigned to increase the utilization of services by a clientele that is steadily decreasing in age.

3. A greater emphasis on involving more family members in treatment services should be made.

4. A common standard of care and a common standard of qualified staff across the province must be maintained.

5. Efforts should be made to train personnel in other health and social services so they are more capable of diagnosing alcoholism and drug dependency.

5.0.3 Implications for Related Sectors of the Health and Social Service Delivery System

The conclusions of this evaluation point out the following:

1. Since there is a radical difference in the use of health and social services by alcoholics before and after they enter a Rehabilitation program, the assumption can be made that there are many alcoholics currently receiving inappropriate care from other parts of the health and social service delivery system.

2. As a result of the above, many health care dollars are being misdirected because of inappropriate treatment being provided in inappropriate health care and social service facilities.

3. Other parts of the health and social service delivery system do not make the number of referrals to the Alcoholism and Drug Dependency Commission that should be forthcoming.

This may be a result of two factors:

A. Misdiagnosis due to a lack of understanding of alcoholism as an illness;

B. The existing funding mechanisms have created a situation which reinforces hospitals and physicians to retain, and not refer, their alcoholic patients.

5.0.4 Alternatives for the Alcoholism and Drug Dependency Commission

The results of this study are indicative of the high quality of service being provided at this time to the residents of New Brunswick. There is room for improvement and suggested courses of action are as follows:

1. Greater effort and resources should be assigned to enhancing the use of services by youth, females and family members;

2. Serious consideration should be given to adjusting the length of the Rehabilitation Program from four weeks to three weeks because the average length of stay presently is 21.3 days for males and 19.2 days for females. This implies that the chronological point of diminishing returns for Rehabilitation patients is about three weeks of in-patient care.

Should this suggested Program change be implemented, it could be implemented on a "pilot project" basis for a one year period. Due to staff and physical plant capability, it would be possible to implement this only at Ridgewood. Such a move would have the following implications:

A It would cause a greater utilization of existing human, financial and physical plant resources at a marginal increase in costs. Approximately 36% more programs could be offered, resulting in 36% more patients who could receive this service.

B This probably would allow for more women and youth to be treated in a Rehabilitation Program. Current treatment philosophy strongly suggests adolescents not be treated with older adult patients because the needs of adolescents are radically different. The same philosophy holds true for women. Changing to a three week program compared to the current four week structure would allow for programs to be more accurately targeted to meet the needs of specific groups such as women, adolescents, seniors and recidivists. Although the present program content fits the patient's needs and not vice-versa, this would be enhanced by treating more homogeneous groups of patients.

C The impact of this change upon Detoxication (Treatment) facilities would not be detrimental.

D The impact of this change upon after care services could be significant and would require monitoring of Out-patient counsellors case loads to determine whether additional positions would be required.

E Cost-benefit analysis suggests that changing to a three week program in Campbellton might not be worthwhile, due to human and physical plant resource limitations. At the same time, it might be advantageous to offer another option for intervention by having a four week program in Campbellton. Since a change to a three week program would necessitate an outcome evaluation plan being an integral component of such a move, it would be useful to have a four week program for comparison of treatment outcomes. Presently there is no significant difference between the two facilities as far as abstinence and program content is concerned.

F Treatment outcome studies done by the Alberta Alcoholism and Drug Abuse Commission indicate that there is no significant difference in outcome rates between 21 and 28 day programs.

G The move to a three week program could be implemented in the 1986-87 fiscal year.

APPENDIX I

Appendix I

Treatment and Rehabilitation policies related to the Rehabilitation Program:

1. Referrals and Admissions to In-patient Programs.
   Policy No. 4.3, Section B.
2. Standards of Treatment and Routine Medication Orders for Rehabilitation Programs.
   Policy No. 4.5
3. Referrals of Rehabilitation Unit Patients to Treatment Centers Prior to Commencement of a Rehabilitation Program.
   Policy No. 4.6
4. Possession of, Use of Alcoholic Beverages, Unprescribed Medication and Illicit Drugs in In-patient Facilities.
   Policy No. 4.7
5. Treatment Services for Women.
   Policy No. 4.9
6. Services for Youth.
   Policy No. 4.10
7. Allocation of Beds for Ridgewood Rehabilitation Program.
   Policy No. 4.12
8. In-patient Services to Members of the same Family.
   Policy No. 4.14
9. Day Care Rehabilitation Programs.
   Policy No. 4.18

Major Resource Materials are:

1. Patient Handbook
   Campbellton Treatment and Rehabilitation Center
2. Patient Handbook
   Ridgewood Treatment and Rehabilitation Center

All materials noted above are available upon request.

APPENDIX II

Appendix II

Client assessment package used by all Out-patient counsellors includes the following:

1. Dependency Assessment (11-1035[10/84])
2. Michigan Alcoholism Screening Test (MAST-25) (11-1036[10/84])
3. Drug Abuse Screening Test (DAST-20) (11-1036[10/84])
4. Client Information
   English and French
5. Client Questionnaire
   English and French
6. Client Service Record
   English and French

All materials noted above are available upon request.

APPENDIX III

DETAILED REPORT:
FOLLOW-UP STUDY OF PATIENTS ADMITTED TO COMMISSION REHABILITATION PROGRAMS

SEPTEMBER 1985

In the present study, we attempted to evaluate the outcome of the Rehabilitation Programs at Ridgewood and Campbellton. Program descriptions, including goals and objectives of these programs, are described in the body of the report. For the purposes of this evaluation we attempted to measure the "success" of the program by discovering abstinence rates, patient satisfaction with program, and effects on the patient's families.

As with many research studies in this field, we defined "abstinence" from alcohol/drugs as the primary goal of the Rehabilitation Program. We felt that consumer satisfaction, i.e. a subjective response of improved life-style as a result of Rehabilitation participation, was another important component of successful treatment outcome. Also, because of the nature of the Rehabilitation Program objectives, the importance of family involvement in recovery was investigated.

Emrick (1974) reviewed 271 studies that evaluated outcome following psychologically oriented alcoholism treatment programs. He found that approximately two-thirds of treatment participants were "improved" or "abstinent" following a treatment program. "Drinking behavior" was found to be the most often used index of improvement in treatment evaluation, with 80% of studies using this variable as the prime indicator. Outcome abstinence rates ranged from 10% to 53.5% within these studies, and only rates above or below these points would be considered unusually high or low.

If the Commission's Rehabilitation Programs are meeting their goals, we would expect to find:

1) abstinence rates, at the six month follow-up, well within the range found by Emrick;
2) fairly high rates of patient satisfaction, i.e. feeling that their lives have improved as a result of Rehabilitation;
3) a fairly high rate of family involvement in the recovery process.

Data collected within our centres have shown that alcoholics/drug abusers have high readmission rates. These high readmission and recidivism rates are characteristic of the disorders and recent studies have argued that "increased attention to recidivism and resource absorption is integral to the program evaluation process". (Richman, 1983)

Therefore, if our programs are having an effect, we would expect to find reduced use of Commission Detoxication services among the sample group. We also expected to find a reduction in involvement with other social service agencies, justice agencies, and health care services.

Finally, we expected to find some relationship between involvement in A.A., use of Antabuse, Out-patient counselling, and outcome abstinence rates.

METHODS

Design

Because of time restrictions, a simple six month "follow-up" design was used in this study. All patients who were admitted to and who stayed a maximum of 48 hours in the Rehabilitation Programs at Saint John and Campbellton during a designated time period were included in the study. Information pertaining to these patients' activities in the six months prior to attending the Rehabilitation Program was to be compared to information concerning their behavior in the six months after the Rehabilitation Program.

Instrument

Client Information and Client Questionnaire forms recently introduced into use in the Alcoholism and Drug Dependency Commission Treatment and Rehabilitation facilities were used as data collection tools. These forms were designed not only to collect demographic data, but to trace individual patient's use of Commission facilities and those services offered by other social agencies. Integrated into the design of the forms is an optional section which may be used to address questions specific to a given research issue. This feature is a built-in evaluation/research component that allows for data collection without major data processing problems.

The sample questions asked were:

1. Have you been taking Antabuse/Temposil since you left Rehab.?
2. In your opinion, has your life improved as a result of Rehab.?
3. Is your family involved in recovery since Rehab.? (including Al-Anon, Al-a-teen, etc.)
4. Have you drank or abused drugs since Rehab.? If so, in which month?

Information on patients for the six month pre-Rehabilitation period came from each patients individual file. Information for the six month post-Rehabilitation period was obtained from personal contact with the patient, the patient's family, or the patient's counsellor.

Data processing was carried out at the UNB Computer Science Department.

Subjects

Eighty-one patients were involved in this follow-up study. Participants were all those persons admitted to the Rehabilitation Programs at Ridgewood and Campbellton during the months of January and February, 1985 who stayed a minimum of forty-eight hours. In all, there were 60 patients from Ridgewood and 21 from Campbellton involved in the pretest phase. Seventy-six of the original 81 patients were contacted for the six month follow-up phase.

RESULTS

Table I presents a demographic profile of the "sample" patients compared to the total Rehabilitation population profile for 1984-85.

The sample appears to reflect fairly closely the typical Rehabilitation population, with the exception that the sample group had a higher proportion of "divorced" and "separated" patients than did the total Rehabilitation population, and the sample group had a higher proportion of patients on Public Assistance and U.I.C. (This higher unemployment rate may be a reflection of the winter season when unemployment rates usually peak.)

TABLE I

DEMOGRAPHIC PROFILE OF THE SAMPLE COMPARED TO THE TOTAL REHABILITATION POPULATION

1984-85

VARIABLE	SAMPLE	REHABILITATION POPULATION
Sex		
Male	79%	81%
Female	21%	19%
Marital Status		
Single	43%	41%
Married	15%	30%
Divorced	17%	11%
Separated	17%	13%
Widowed	--	2%
Common Law	7%	4%
Religious Participation		
Active	41%	42%
Not Active	59%	58%
Education		
0 - 6 years	7%	9%
7 - 9 years	28%	34%
10 - 12 years	52%	44%
Vocational	--	1%
Business	--	--
Technical	4%	3%
1-4 years university	6%	5%
Degree	2%	3%
Source of Income		
Job	23%	31%
Spouse	4%	4%
Family	2%	3%
Friends	1%	--
Public Assistance	35%	30%
U.I.C.	22%	18%
Pension	4%	4%
Insurance	1%	1%
Savings	2%	1%
None	5%	6%

Table II shows the mode of contact with sample patients on the post-Rehabilitation questionnaire.

TABLE II
POST-REHABILITATION QUESTIONNAIRE CONTACTS

MODE OF CONTACT	RIDGEWOOD	CAMPBELLTON	TOTAL
Personal	34	9	43
Family	8	-	8
Counsellor/File	13	12	25
No Contact	5	-	5
	60	21	81

All "no contacts" were from the Ridgewood program. Approximately half of the contacts were made in person or by telephone.

Sample Questions

Forty-five percent (45%) of all patients reporting at follow-up said that they had used Antabuse in the six months following the Rehabilitation program.

Seventy-six percent (76%) of the sample reported that their participation in the Rehabilitation program had resulted in an improved life-style.

Only twenty percent (20%) of the patients reported that their family was actively involved in a recovery program.

Fifty percent (50%) of the respondents reported abstinence from drugs and alcohol throughout the six month follow-up period.

Table III below summarizes these findings.

TABLE III

THE PROPORTION OF PERSONS RESPONDING "YES" TO EACH SAMPLE QUESTION BY REHABILITATION CENTRE

QUESTION	RIDGEWOOD	CAMPBELLTON	BOTH
1. Antabuse	51%	19%	45%
2. Improved Life	80%	71%	76%
3. Family in Recovery	5%	62%	20%
4. Abstinent	47%	52%	50%

The obvious difference shown in this table was that patients from Ridgewood were far more likely to have used Antabuse, while Campbellton patients were far more likely to have had their family involved in a recovery process.

Despite these differences, both groups reported that approximately half of the respondents were abstinent after six months, and the majority of patients from both groups felt that their life had improved as a result of Rehabilitation. (Because of the great difference in sample sizes and the fact that both samples were so small, it is impossible to say if the small differences [less than 10%] that existed between groups on these two variables were significant. In this case, the assumption is that the difference was due to chance.)

Not Abstinent

Thirty-eight persons reported "taking a drink" and/or "abusing a drug" during the six month post-Rehabilitation period. Table IV shows when patients first used alcohol/drugs after the Rehabilitation Program.

TABLE IV

THE NUMBERS WHO DRANK/USED DRUGS AFTER REHABILITATION AND WHEN THEY STARTED AGAIN

WHEN STARTED DRINKING/DRUGS	NUMBER	PROPORTION
1st month	14	36%
2nd month	5	13%
3rd month	7	18%
4th month	8	21%
5th month	4	10%
6th month	1	2%
	39	100%

Of those who did not abstain, the largest proportion "relapsed" during the first month after Rehabilitation.

Resource Network

Table V shows what proportion of patients reported using each of the listed resources prior to admission to Rehabilitation compared to the proportion who reported use within the six month period after Rehabilitation. Within this table, post-Rehabilitation data is further broken down to show the difference between drinkers and abstainers.

These data demonstrate that, at the post-Rehabilitation interview, both drinkers and abstainers reported reduced usage of many of the resources listed. For example: while 77% of patients reported seeing a doctor in the six months prior to Rehabilitation, only 32% of the drinkers and 18% of the abstainers saw a doctor in the six month post-Rehabilitation period.

TABLE V

PROPORTION CONTACTING RESOURCES BEFORE AND AFTER REHABILITATION

RESOURCE	PRE-REHABILITATION	POST-REHABILITATION	
	ALL PATIENTS	DRINKING	SOBER
1. Mental Health	11%	5%	5%
2. Psychiatric Hospital	5%	5%	0
3. Physician	77%	32%	18%
4. General Hospital	4%	13%	0
5. Social Services	25%	13%	5%
6. School Counsellor	1%	5%	0
7. Other Social Agency	2%	3%	3%
8. Employer	10%	3%	9%
9. Union	2%	0	0
10. EAP	6%	0	0
11. NADAP	0	0	0
12. Treatment Centre	51%	37%	3%
13. Rehabilitation Program	6%	21%	11%
14. OPD	66%	63%	53%
15. Self Help	2%	9%	3%
16. AA	56%	50%	68%
17. Clergy	2%	3%	5%
18. Family	11%	13%	5%
19. Self	0	0	0
20. Other	0	0	0
21. Justice Facility	16%	9%	9%
22. Court	12%	11%	5%
23. Police	12%	9%	5%
24. Probation	12%	9%	0
25. Parole	7%	11%	3%
26. DWI	9%	3%	0
27. Alcohol/Drug Charge	4%	0	0

Effects of Post-Rehabilitation Involvement

Our main index of "successful outcome" was abstinence. Half of the patients in this study had not drank in the six months following Rehabilitation. Drinkers and abstainers were compared on the basis of post-Rehabilitation involvement to discover what might have affected who drank and who did not.

Table VI looks at the effects of doing one or more of the three suggested post-Rehabilitation therapies: using Antabuse; attending AA; participating in Out-patient therapy.

TABLE VI

OUTCOME	DID ANY OR ALL OF 3 POST-REHABILITATION THERAPIES	DID NONE OF THE POST-REHABILITATION THERAPIES	TOTAL
Drank	33	5	38
Abstained	32	6	38
	65	11	76

These data show that the majority "did something" after Rehabilitation; however, just being involved in some or all of the post-Rehabilitation therapies did not improve the chances of being abstinent.

Table VII further breaks down the data. Here, all possible combinations of follow-up therapy are given and broken down by the abstinence variable. Of the seven possibilities, 15 patients (23%) chose to go to AA, attend Out-patient counselling, and use Antabuse. This combination resulted in the largest group of abstainers, 11 of 15, i.e. 73% of patients who did all three post-Rehabilitation therapies remained sober.

TABLE VII

ALL POSSIBLE "POST-REHABILITATION THERAPY" COMBINATIONS BY THE ABSTINENCE VARIABLE

Outcome	Only AA	Only OPD	Only Antabuse	AA Antabuse	AA OPD	OPD Antabuse	ALL Three	Total
Drank	6	8	0	3	6	6	4	33
Abstained	6	1	2	4	5	3	11	32
	12	9	2	7	11	9	15	65

DISCUSSION

Abstinence, as a treatment outcome goal, remains the primary objective among the majority of clinical workers in the alcoholism field. A study by Patton (1979) showed that patients who sustained abstinence through a follow-up period reported improved relationships with family, friends and employers, and overall improvements in self-image, job performance, physical health, life enjoyment and community participation.

At the present time "improved drinking behavior" or non-problem drinking are not considered to be credible goals (NIAAA 1981), despite the fact that some researchers have observed that abstinence does not always result in improved social functioning. However, it is important to remember that "the liver, stomach, pancreas, bone marrow, brain and peripheral nerves thrive with abstinence even if the patient remains unemployed, on welfare, separated from his wife, unassertive and possessed of a terrible self-image" (Gordis, et al., 1981).

The abstinence rate among the Commission's Rehabilitation patients was 50%, well within the expected range, and comparable to the 47% abstinence rate reported at the Henwood Rehabilitation Program (1983) in Alberta. A follow-up study by Gordis, et al. (1981) in the U.S. showed that less than half of the 5,578 patients that they followed were abstinent at six months after treatment.

The determination of why half of the patients remained abstinent and half began drinking again is beyond the scope of this study; however, the literature suggests that the socio-economic status and social stability of the individual patient are important factors influencing recovery.

Gordis, et al. (1981), using a regression analysis, showed that "a patient who reports A.A. attendance and Antabuse use at the first interval report, is 40 years old, has a job, and enters the program through the clinic without in-patient detoxication is expected to report abstinence for about 80% of at least one year under observation" (Gordis, et al., 1981).

Studies have shown the "substantial effectiveness" of in-patient alcoholism treatment for socially stable, middle class alcoholics, and a recent report from the NIAAA has stated: "For patient populations in which highly negative extra-treatment factors associated with social instability and low socio-economic class standing are minimal or absent, alcoholism treatment has been shown to be highly effective in producing sustained abstinence at follow-up and improved psycho-social adjustment on a variety of outcome measures". Because of the nature of the services that we deliver in this province, patients cannot be screened for exclusion from Commission facilities based on a low success potential.

The findings from the present study also show a reduction in the use of health care services following the Rehabilitation program. The research of Kogutek and Kite (1978) showed similar results, with their patients reporting substantial drops in hospital admissions and visits to physicians following treatment.

The importance of involvement in a post-Rehabilitation program was demonstrated. Patients involved in AA, taking Antabuse, and attending Out-patient counselling sessions were much more likely to have remained sober than were other patients.

Because the present study was not designed to test causative factors, we cannot say that involvement with AA, use of Antabuse, and involvement in Out-patient counselling caused the improvement; however, the importance of these after-care elements

is indicated.

Finally, family involvement in the treatment process was not shown at the expected levels. Because a disruptive family life is a part of alcoholism, then treating the family must be an important part of a total treatment package.

More attention should be paid to the inclusion of the family in the treatment process, taking into account the importance of "social stability" in treatment outcome, and the high risk of alcoholism among children of alcoholics.

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